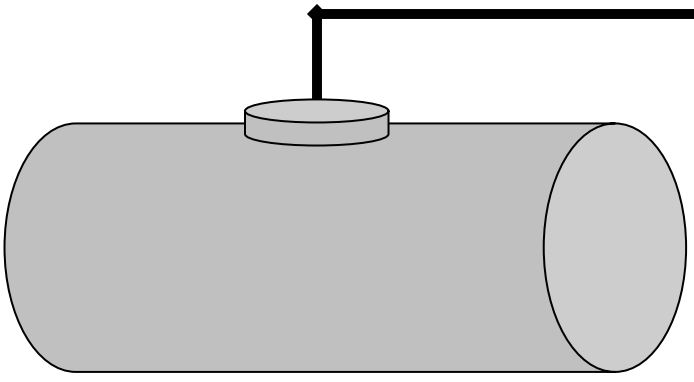
Plain Talk on Heating Oil Tanks

An Operator's Guide to Maine's Underground Storage Tank Rules



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Maine Department of Environmental Protection

This manual belongs to

Your Name: _____

Your Facility Name: _____

Your Location: _____

Facility Registration #: _____

Disclaimer: This guide is intended only as "plain English" to aid UST owners and operators in understanding and implementing Maine's regulatory requirements for underground oil storage tanks. It is not intended to supplement or replace any statutory or regulatory requirements, and does not create any enforceable right at law or equity. In the event that any inadvertent conflict between this guide and Maine's statutes and regulations, the statutes and regulations shall control.

This document was prepared for the State of Maine by

Ben Thomas Associates

Solutions for Underground Petroleum Storage Tank Systems

www.bentanks.com

Table of Contents

This document does not cover tanks that serve an emergency power generator or dispense heating oil from a dispenser, which are considered **motor fuel tanks**. See the Maine DEP document "Plain Talk on Motor Fuel Tanks" for more information.

Before you begin

Purpose

This guide is for people who own, operate or manage an underground **heating oil tank** used to heat a building.

The State of Maine recognizes that you have spent a lot of time, effort and money to comply with underground oil storage tank rules. The State also understands that the rules can be complicated and challenging to read.

This manual is designed to help you understand Maine's rules on underground petroleum storage tanks in simple, easy to read language.

But the rules can vary, depending on the type of tank equipment you have. Once you know what you have, you can read the parts of this manual that apply to you and skip the rest.

The main purpose of this manual is to help guide you through the tank rules with as little confusion as possible. That will help you have a safe and reliable fuel management system.

Why read this guide?

- Save time
- Save money
- Avoid hassles
- Prevent little problems from turning into big ones

Q. Why read this manual?

Didn't you already install all the necessary "bells and whistles" to be in compliance? What else is left to do?

A. Because your underground tank system can still leak.

You need to know how to prevent this. The "bells and whistles" are likely to fail if you don't properly maintain and service them.

Symbols

The following symbols are provided to help the reader understand certain important concepts. Look for these symbols throughout this document.

Checklists Checklists are provided to help the reader simplify particular tank rules.

Problems Watch out for these common problems. These are real life problems in Maine and show how to NOT do something.

Compliance Issues Maine's DEP pays particular attention to certain compliance issues that are critical in protecting human health and the environment. Know what an inspector is looking for.

Success Stories There is always a better way to do something. Get good advice by learning about real life experiences where UST operators have succeeded in meeting or exceeding UST rules.

Understanding Jargon

Every effort has been made to use layman's terms in this guide so everyone can understand the requirements. Sometimes, however, you may not be familiar with certain terms.

Each section in this guide will start with a box that contains terms you should be familiar with in the upcoming discussion. If you know these terms you will better understand the rules.

Jargon:
('jar-gin) words or expressions used by a particular group or profession

See a word or term you don't understand? Go to Definitions on pages 10-11.

Chapter 1. The Big Picture

In this chapter you learn about the basics of the underground tank program: the goals of good tank management, the parts that make up a whole tank system, who does what in the world of tank systems, and tank terms.

Underground
Storage
Tank

Terms to know in this chapter

- Contamination
- Drinking water supply
- Groundwater
- Underground storage tank or UST

Contamination from leaking underground storage tanks can pose a significant threat to Maine's drinking water supplies. Since 1990, over 600 leaking UST sites have contaminated ground water and drinking water supplies in Maine.

Leaking UST systems can

- Make drinking water supplies unfit for human consumption.
- Create a fire hazard.
- De-value land and stop real estate sales.
- Cause groundwater pollution that can move onto neighboring properties.
- Seep into rivers, lakes and the ocean.

Your job as an operator

is to safely and properly manage your underground storage tank system by preventing leaks, spills and rust.

Basic Rules

Maine's UST rules were created for the simple purpose of helping you keep fuel on the *inside* of your tanks and piping, rather than *outside* of it.

This section is to help you understand the most basic requirements to operate a UST system in Maine. Later, you will learn more detailed requirements on your particular tank.

Look for these signs to guide you in Chapter 2.

Was your tank installed before or after September 16, 1991?

You need to know this in order to understand which rules apply to you.

Key Concepts

Detecting leaks

Doing maintenance

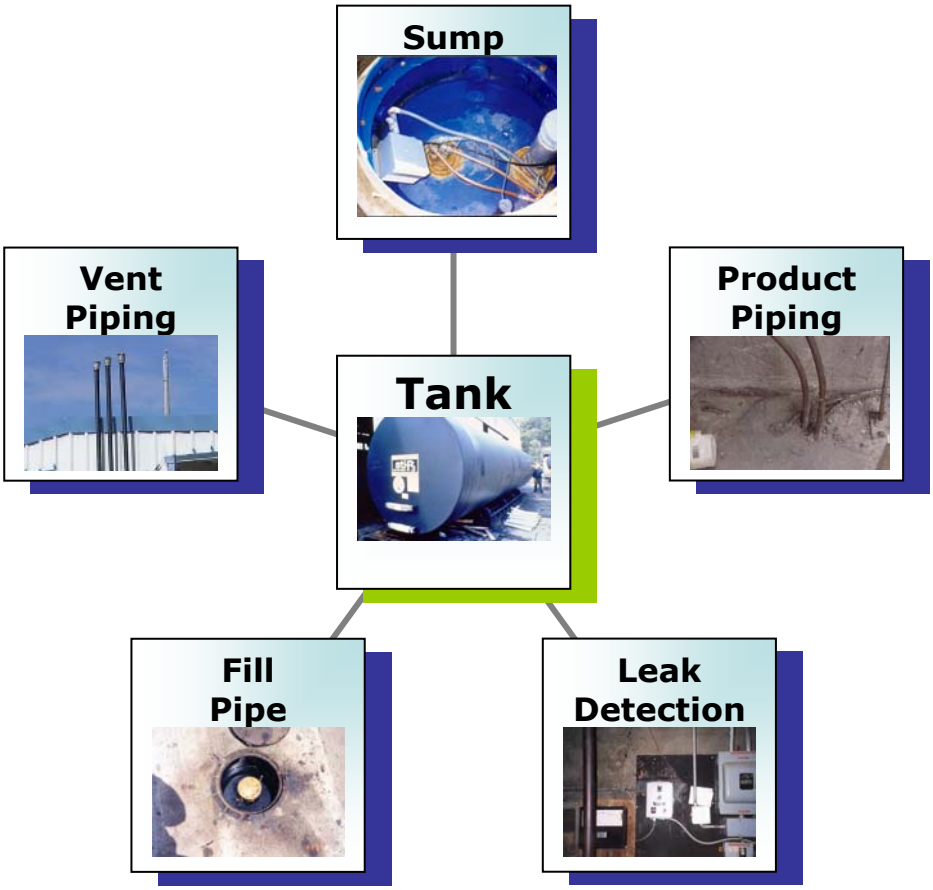
Preventing overfills

Keeping good records

Stopping corrosion

Responding to problems

Parts of a Tank System



Parts

Tank. Underground container used to store petroleum.

Product Piping. Two-pipe system used to move petroleum from the tank to the furnace and return unburnt fuel to the tank.

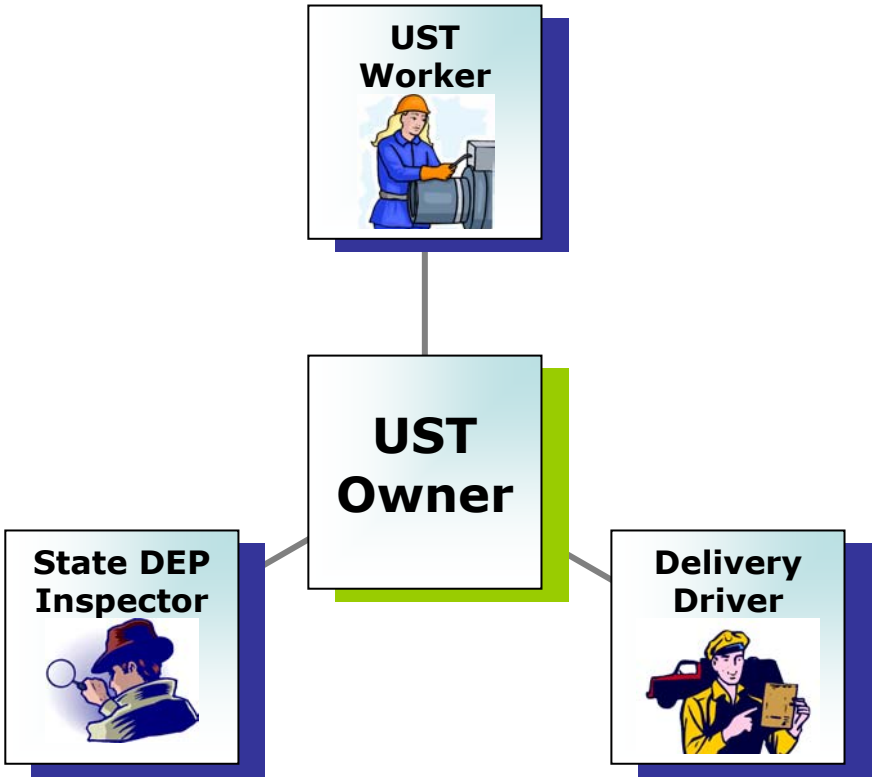
Sump. Large underground bucket used to house piping joints, sensors, etc.

Leak Detection. System used to look for leaks on a periodic or continuous basis.

Fill Pipe. Where fuel is put into the tank.

Vent Piping. Piping used to vent tank so pressure does not build up into a vapor hazard.

Who does what



People

Owner. The person who owns and is responsible for the tank system.

State (DEP) Inspector. Person who make sure UST system meets state of Maine requirements.

UST Worker. Licensed professional who works on tanks: installs, repairs, upgrades or inspects, or any combination of these.

Definitions

Cathodically protected - using a method to prevent the corrosion of a metal surface.

Cathodic protection monitoring – measuring electric current from underground metal to figure out if the metal is being protected from corrosion.

Certified installer – a person who is certified by the State of Maine to perform installation, upgrades, and repairs on a UST system.

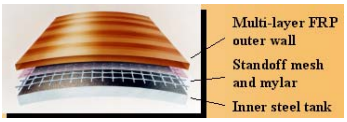
Corrosion expert - a person who is certified and qualified to do corrosion control work on buried metal piping and tanks.

Continuous monitoring - using an automated device to continuously look for leaks which will provide an obvious indication of a loss of oil or a hole in the primary wall of the tank or pipe.

Department- the Maine Department of Environmental Protection or DEP, the state agency that regulates underground oil tanks.

Discharge - any spilling, leaking, pumping, pouring, emitting, escaping, emptying, or dumping of oil.

Double-walled tank or piping - an underground oil storage tank or pipe that has an inner and outer wall, which can measure for oil or water between the walls.

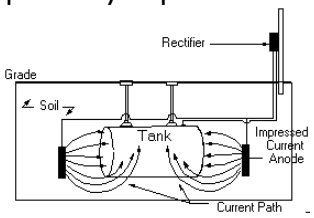


Groundwater monitoring – using a number of small diameter wells to look for oil in the groundwater near an underground tank.

Heavy oil - an oil that must be heated during storage, including #5 and #6 oils.

Heating oil – an oil consumed on premises where stored for heating purposes only.

Impressed current cathodic protection system - a corrosion protection system that uses direct current supplied by a power source.



Leak - a loss or gain of one-tenth of one gallon (0.1 gallons) or more per hour as determined by a tightness test.

Occurrence - a contamination incident or prohibited discharge from a tank or piping at an underground oil storage facility.

Owner - a person who alone, or with others, owns an underground oil storage facility.

Secondary containment - a double walled tank or piping system that is designed to detect and contain oil in the outer wall, should the inner wall fail.

Sump – large, bucket-like container that houses the pump, portions of the piping, sensors and electrical wires.

Underground oil storage facility, or "facility," -any underground oil storage tank or tanks, together with associated piping located under any land at a single location and used, or intended to be used, for the storage or supply of oil. Underground oil storage facility also includes piping located under any land at a single location associated with above ground storage tanks and containing 10 percent or more of the facility's volume capacity.

Underground oil storage tank, or "tank," - any container, 10% or more below ground and which is used, or intended to be used, for the storage of oil. The term does not include certain tanks in vaults; propane tanks, underground oil water separators, storm water and other catch basins, and hydraulic lift tank.